

4. Hazard Identification, Location, Risk

Franklin County has been the site of numerous large wildfires over the past thirty years. The fuels, weather and topography in Franklin County combine to make wildfire an annual hazard with associated risks.

Traditionally, lightning causes 51% of the fires within Eastern Idaho and 49% are human caused (<http://www.fs.fed.us/r4/caribou-targhee/EIIFC/Data/Data/Statistics.htm>). Additionally, there were numerous small fires started by farm equipment working in the fields. These fires were numerous in number, but small in size due to the inability of the farmed fields to carry a fire and because the farmers would extinguish the fires as quickly as they would start.

With the inclusion of previously farmed fields into the CRP program there have been fewer fires started by farm equipment. However, there is a growing concern with Franklin County residents that while the number of fires has gone down, the potential for larger, more catastrophic fires has increased. This is due to the increased fuel load on CRP lands and the absence of farmers in the field to stop fires before they become large.

The Fire Map in Appendix A depicts those areas that have burned over the past three decades. From the map it is clear that several areas have burned repeatedly during that time. Landscape scars from past intense large wildfires are obvious in much of the County. The vegetative recovery from many of these wildfires is ongoing and many of the burned areas have been converted to cheat grass and other invasive plant species.

4.1 Wildfire Fuels in Franklin County

Wildfire depends upon vegetative fuels. This mix of native vegetation and the changes in that vegetation due to human activity create the resources for possible wildfire. Fuels that contribute to wildfires in Franklin County range from cheat grass/low elevation shrub steppe to pinion- juniper on the West side, and mid-elevation shrub steppe/mountain shrub evident at higher elevations on the East side. Farmland/shrub steppe/with a cheat grass under story (including lands in CRP) is the major wildfire fuel near communities, homes or developments.

Obviously, as the amount of vegetation types or their height increases, the potential for intensive fire rises. Of particular concern is when ground fuels burn intensively enough to ignite ladder fuels that help carry the fire upwards from the ground to the taller trees, setting off the potential for a crown fire where the fire can spread rapidly through the forest - given the intensity of the wind and other climatic conditions.

The fuel composition in Franklin County is mixed, varying from small grain crops in the valley to sages and trees on the perimeter. In those areas most prone to wildfires, human activity has changed the nature of the fuels in the region. Urbanization and disease have reduced the number of fire-tolerant species, increasing the probability of wildfire. In addition, fire suppression has increased the amount of ground and ladder fuels within the region.

Fire exclusion and lack of mechanical treatment (thinning) have resulted in dense stands of low elevation shrub steppe/with a grass under story. Where fire has been present, the native grass and shrub species have been replaced with noxious weeds/cheat grass or other invasive non-native species. These grasses and weeds areas provide available fuel for wildfire spread and increased intensity. Drought, combined with these vegetation types, provides additional dead vegetation to fuel future wildfires.

Farmland that has been placed in the Conservation Reserve Program (CRP) has shown significant increases in wildfire fuel loads. Because of restrictions on vegetation manipulation activities on CRP land fuel material has been allowed to accumulate for several years on these sites. The limitation of vegetation manipulation has also resulted in an invasion of non-native species on some CRP land.

4.2 Franklin County Wildland/Urban Interface (WUI)

Franklin County contains numerous developments that are in two of the three defined WUI categories. These categories are:

Classic Interface: An area where well-defined urban and suburban development press up against open expanses of wildland areas.

Mixed Interface: Isolated homes, subdivisions, and small communities situated predominantly in wildland settings.

Occluded Interface: Islands of wildland vegetation occurring inside largely urbanized areas.

Most of Franklin County is in the mixed interface category, with the cities of Dayton, Clifton, and Oxford fitting the classic interface definition.

4.3 Risk Assessment

The accumulation of fuels in the forests of Franklin County poses risks to those who inhabit the WUI zone. There are risks to resources as well ,i.e., wildlife habitat, water and recreation resources. However, the focus on this plan is to reduce risk to people and homes.

4.4 National Fire Plan

In August 2000, the Clinton Administration directed the Secretaries of Agriculture and Interior to prepare a report that would recommend how best to respond to the year's severe wildland fires, reduce the impacts of such wildland fires on rural communities, and ensure sufficient firefighting resources in the future. The report, titled "Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000," is called The National Fire Plan for short. In August 2001, a comprehensive strategy was released that involved the Governors of Montana, Wyoming, Idaho, Oregon, the Secretaries of Agriculture and Interior with the

"Implementation Plan" which was signed May 23, 2003. This plan is part of Idaho's Statewide Implementation Strategy for the National Fire Plan.

The National Fire Plan (www.fireplan.gov), as published in the Federal Register August 17, 2003, identifies all of the major communities in Franklin County as at-risk communities. The risk was assessed by the cumulative information from those federal agencies dealing with wildland fire hazards. It is this fire plan that helps set the stage for providing for funds for hazardous fuels treatment. Although this is a broad brush stroke of assessment, it provides evidence that the County does have a serious wildfire risk and that there is a threat to property and persons.

4.5 Hazard Locations

The Franklin County Fire Mitigation Planning Group, using the fire map for 1970 - 2003 and field observation, identified hazard areas with the County. The Bureau of Land Management's (BLM) Graphical Information System (GIS) personnel created a map of this information.

The areas of High Risk are:

- Maple Creek (Franklin)
- Cub River
- Oneida Narrows
- Cottonwood Creek
- West Oxford
- West Dayton

The areas of Moderate Risk are:

- Lower Cub River
- Glendale
- Mink Creek
- Maple Grove
- Twin Lakes



Cub River - Narrow Roads and Heavy Fuels



Maple Grove - CRP Lands



Mink Creek - Roads & Terrain



Maple Creek - Access



Oxford - Steep Terrain



Dayton - Steep Terrain



Weed Control on CRP lands

4.6 Other Hazard Issues

The interface areas within Franklin County are characterized by a diverse mixture of varying housing structures, development patterns, ornamental and natural vegetation and natural fuels. In the event of a wildfire, vegetation, structures and other flammables can merge with unpredictable results. Reviewing past WUI fires shows that most property is destroyed or damaged for one or more of the following reasons:



- Combustible roofing material
- Wood construction
- Structures with no defensible space
- Fire departments with poor or limited road access to structures
- Developments located in heavy natural fuel types
- Structure/properties located on steep slopes covered with flammable vegetation
- Limited water supply.

Franklin County exhibits all of these characteristics either throughout the County, or in some instances, within a very concentrated area. During every public meeting about this planning effort several of the issues identified above were echoed by the public.

4.6.1 Limited Road Access

This is a major issue for emergency service providers within the County. As population trends and demands for housing increase, some developments exhibit less than adequate turn-around space for emergency vehicles. Some County communities and developments are challenged by steep narrow roadways, while others are served by bridges that have weight restrictions imposed, thereby eliminating various types of fire suppression resources as an option in protecting lives and properties.



4.6.2 Limited Water Supply

In remote developments/communities within the County, limited water supply continues to hamper suppression operations in the WUI areas. Those areas characteristically have inadequate water systems and lack of hydrants. Additionally, concern was expressed about emergency power supply to critical water sources as power supply tends to be easily disrupted when wildland fires occur.

4.6.3 Home location and condition

At each of the public meetings, home location and condition was raised. There is no good inventory regarding the location of homes within the County and the conditions and resources available at each home to assist in wildland fire suppression or help in planning fire suppression priorities.

4.6.4 Time to respond

For volunteer fire departments, the time to respond is poor in outlying areas. This is due in part to the location of firefighting equipment. FCFD has one fire station, which is located in Preston. In conjunction with the fire rating personnel, three additional fire station locations have been identified:

- Dayton
- Franklin
- Thatcher

These additional fire stations would need to be equipped with first responder capabilities.

4.7 Noxious Weeds & Exotic Annual Grasses

Increased infestations of noxious weeds and exotic annual grasses increase the wildfire fire risk. The County Weed Director's maps show the infestations within the County.

The weed infestations within the areas of risk are:

Maple Creek (Franklin)

- Canadian Thistle
 - Leafy Spurge
 - Poison Hemlock
 - Spotted Knapweed
 - Jointed Goat grass
 - Hoary Cress
 - Cheatgrass
- Cub River
 - Canadian Thistle
 - Scotch Thistle
 - Poison Hemlock
 - Jointed Goatgrass
 - Cheatgrass
 - Oneida Narrows
 - Canadian Thistle
 - Musk Thistle
 - Scotch Thistle
 - Poison Hemlock
 - Cheatgrass
 - Cottonwood Creek
 - Canadian Thistle
 - Musk thistle
 - Spotted Knapweed

- Cheatgrass
- Oxford
 - Canadian Thistle
 - Musk Thistle
 - Spotted Knapweed
 - Cheatgrass
- Dayton
 - Canadian Thistle
 - Leafy Spurge
 - Puncture Vine
 - Poison Hemlock
 - Spotted Knapweed
 - Cheatgrass

The areas of Moderate Risk are:

- Lower Cub River
 - Canadian Thistle
 - Musk Thistle
 - Cheatgrass
- Glendale
 - Canadian Thistle
 - Poison Hemlock
 - Jointed Goatgrass
 - Cheatgrass
- Mink Creek
 - Canadian Thistle
 - Cheatgrass
- Maple Grove
 - Canadian Thistle
 - Musk Thistle
 - Poison Hemlock
 - Cheatgrass
- Twin Lakes
 - Canadian Thistle
 - Perennial Sow Thistle
 - Scotch Thistle
 - Dalmatian Toadflax
 - Jointed Goat grass
 - Hoary Cress
 - Cheatgrass

4.8 Values at Risk

Values at risk to wildfire in Franklin County includes privately owned homes and property, County assets (buildings, communication sites, road/highway stabilization or repair), soil stability concerns, critical wildlife winter ranges, recreational activities and tourism, and the safety of residents, visitors, and fire fighters in the fuel types, conditions and rugged terrain of Franklin County. The county currently has over 3,700 homes and other property valued at more than \$244 million.

These figures do not include the millions of dollars in farm land, livestock and other personal assets that are at risk to wildland fire. Light industry assets in the southern portion of the County are also at risk include the Wrightwood Egg production and processing facility and mining equipment in the central area of the county. These assets are valued in the multi-millions of dollars and are significant to the tax base of Franklin County.

Three highway transportation corridors, State Highways 34, 36 and 91 are vulnerable to wildfire. Bureau of Land Management, U. S. Forest Service and County roads have been closed on numerous occasions because of wildfires. Wood power poles and power lines are at risk in a wildland fire situation. Not only does a fire have the potential to ignite wood poles, there is the possibility of "carbon-pathing" and power interruption.

Power outages on transmission lines in Franklin County can have a catastrophic effect on people in the whole Western United States.

Currently there is no comprehensive inventory of homes. However, the approximate numbers of homes, structures, and places of community value within the High Risk Areas are:

- Maple Creek (Franklin) - 50 homes, Public Water Supplies, Recreation
- Cub River - 150 homes, Churches, Public Water Supplies, Recreation, Historic Sites, Cemetery
- Oneida Narrows - 75 homes, power supplies
- Cottonwood Creek - 30 homes, Churches, Recreation
- Oxford - 50 homes, Churches, Recreation, Public Water Supplies, Cemetery
- Dayton - 25 homes, Churches, Recreation, Public Water Supplies

Total = 380 homes

The Areas of Moderate Risk are:

- Lower Cub River - 35 homes, Churches, Public Water Supplies
- Glendale - 30 homes, Recreation, Mining, Hydroelectric Plant, Public Drinking Water Facilities, Irrigation Facilities
- Mink Creek - 25 homes, Churches, Public Water Supplies, Recreation
- Maple Grove - 50 homes, Churches, Public Water Supplies, Recreation
- Twin Lakes - 25 homes, Recreation, Irrigation Facilities

Total = 165 homes

4.9 Hazard Prioritization

Based on the hazards discussion, the planning team constructed eleven different hazard statements that encompassed the hazard discussions. The planning team then prioritized the hazard issues by rating each issue as having a High, Medium or Low impact on each of the three plan goals for 1) protection of life, 2) protection of property, and 3) protection of resources. The following table shows the results of the rating process, with the issues sorted in priority order from most important to least important.

Rating Process Results				
Issues	Life	Property	Resources	Priority
Franklin County's subdivisions & homeowners in High Risk Areas are without emergency wildfire plans or other emergency plans in place.	5	5	5	15.00
Franklin County's Subdivision and Building Code Ordinances need to be revised to address fire protection and prevention.	5	5	5	15.00
Franklin County has limited sources of water for fighting wildland fires and many of those sources are vulnerable to disruption of service in the event of a wildland fire.	5	5	5	15.00
Franklin County has limited fire station locations and equipment that result in poor response times to fires in outlying portions of the county.	5	5	3	13.00
Franklin County has numerous county roads, infrastructure, communication sites, developments and communities that require hazardous fuels reduction (HFR).	3	5	3	11.00
Franklin County lacks defensible space, fire resistant building materials, and adequate bridges in some developments and at private homes.	5	5	1	11.00
Franklin County's volunteer fire department is having difficulty meeting standards or requirements pertaining to: Training, PPE, Communications, Equipment, Apparatus and Facilities.	3	3	3	9.00
Franklin County citizens have had limited Firewise education, information and awareness with regards to wildland fire.	3	3	3	9.00
Franklin County and Forest Service Roads lack turnouts for emergency vehicles to pass slower vehicles and weight limits are not posted on all bridges.	3	3	3	9.00
Franklin County has no comprehensive inventory of homes and values at risk in the event of a wildland fire.	1	3	1	5.00
Franklin County has a large amount of land in the CRP increasing fuel loads beyond what would normally occur on tilled farmland.	1	3	1	5.00

4.10 Existing Resources & Mitigation Programs

Existing mitigation activities include current mitigation programs and activities that are being implemented by county, state and federal agencies within Franklin County.

4.10.1 Local Resources

FCFD was formed in 2001 by combining Preston City's and Franklin County's Fire Departments. Their combined staffs consist of 28 volunteers. The current inventory of equipment is:

- Three (3) Type 1 Structure Engines
- One (1) Type 1 Pumper/Tender
- One (1) Type 2 Rescue
- One (1) Type 3 Pumper
- Five (5) Type 6 Brush Trucks
- Two (2) Support Vehicles

There is an immediate need for:

- One (1) Pumper/Tender.

When the additional Fire Stations are constructed there will be a need for additional equipment to be housed at each of these stations. That equipment will probably be:

- Type 6 Brush Truck
- Type 1 Structure Engine
- Tanker
- EMT Vehicle

4.10.2 Local Programs

Local programs have been:

- Fire prevention educational in schools
- Inspections of structures and businesses
- Training for personnel
- Acquiring adequate equipment

4.10.3 County Codes

Franklin County's Subdivision Ordinances established road standards, conditions of design and construction for new roads in subdivisions.

Franklin County's Building Inspection Ordinances contain guidance for design requirements for structure construction within the County.

4.10.4 Idaho Department of Lands (IDL) Programs

- Provides education to property owners about fire hazards in WUI areas.
- Manages the Hazardous Fuels Reduction Program to assist landowners or counties with grant funds for reduction of hazardous fuels.
- Manages the Forest Stewardship program,
- Provides suppression training and resources as requested.
- Declares fire closures when wildfire danger ratings and conditions require.

4.10.5 Federal Programs

The role of the federal land managing agencies in Franklin County is focused on reducing fuel hazards on the lands they administer. They also provide prevention and education programs, provide technical and financial assistance and develop agreements and partnerships with other agencies and private stakeholders in an effort to provide for safer communities within the wildland areas. Some of the programs provide grants to rural fire districts within the County, which has enhanced the current operations, and will continue to do so within the foreseeable future.

Fire Suppression Assistance Grants may be provided to a state with an approved hazard mitigation plan. These grants are provided to protect life and improved property. The grant may include funds for training, equipment, supplies, and personnel.

4.10.6 National Wildland/Urban Interface Fire Protection Program

Federal agencies can use the National Wildland/Urban Interface Fire Protection Program to focus on wildland/urban interface fire protection issues and actions. The Western Governors' Association (WGA) uses this program to involve state agencies, as well as local agencies and private stakeholders.

4.10.7 Prescribed Burning/Mechanical/Biological Treatment

Within Franklin County, the inclusion of cropland in the Conservation Reserve Program (CRP), coupled with historical fire exclusion has resulted in a backlog of fuel accumulation. As a result, new ignitions can move more quickly and intensely. Prescribed burning and/or mechanical treatment are the most efficient methods to mitigate these fuels. Biological treatment (regulated grazing) of some fuels has also been utilized with success in other areas of Idaho.

4.10.8 Firewise

Firewise is a program developed within the National Wildland/Urban Interface Fire Protection Program. It is administered through the National Wildfire Coordinating Group (NWCG), with the intention of educating planners and decision makers at the local level. Firewise offers online wildfire protection information and checklists, as well as listings of other publications, videos, and conferences. Future developments in Franklin County that would be planned and coordinated as "Firewise" communities would likely be well received by potential home buyers.